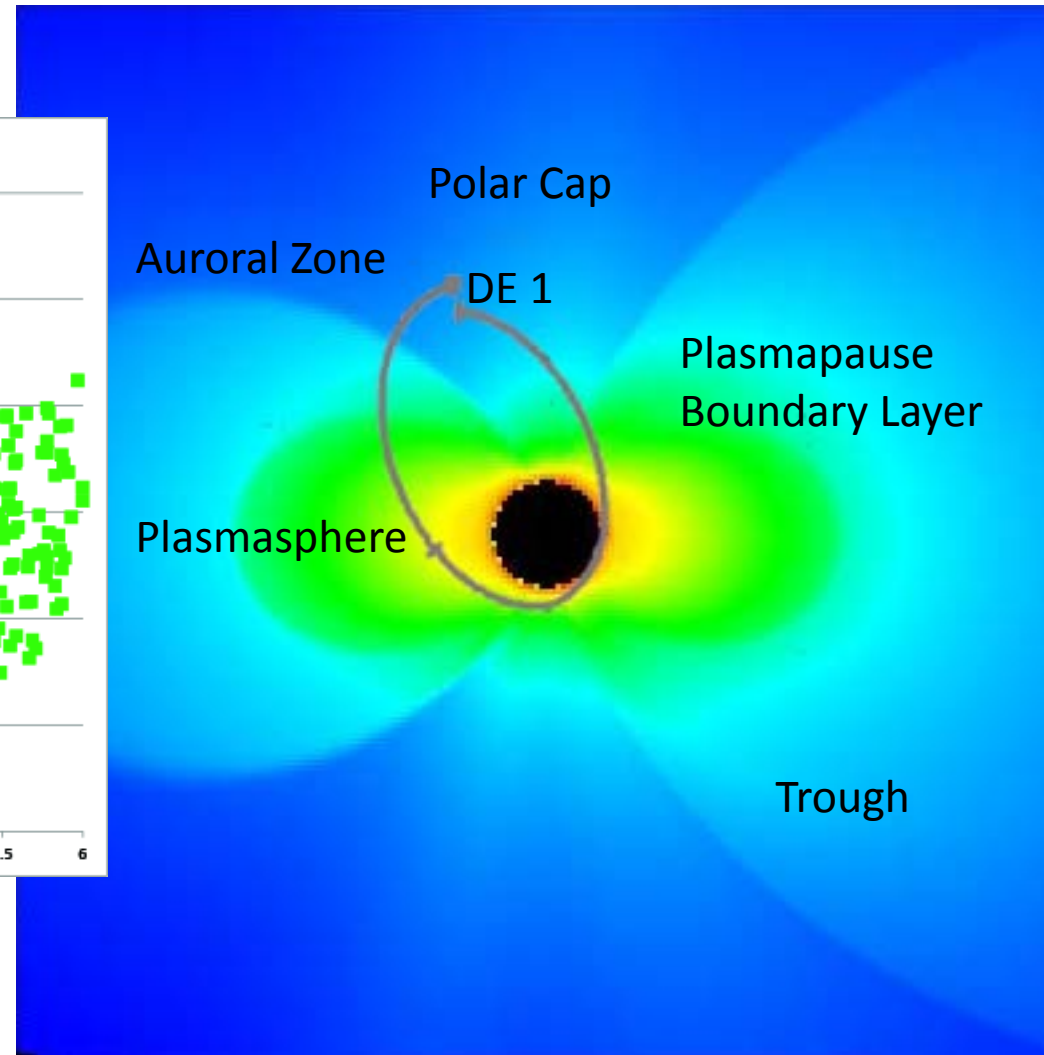
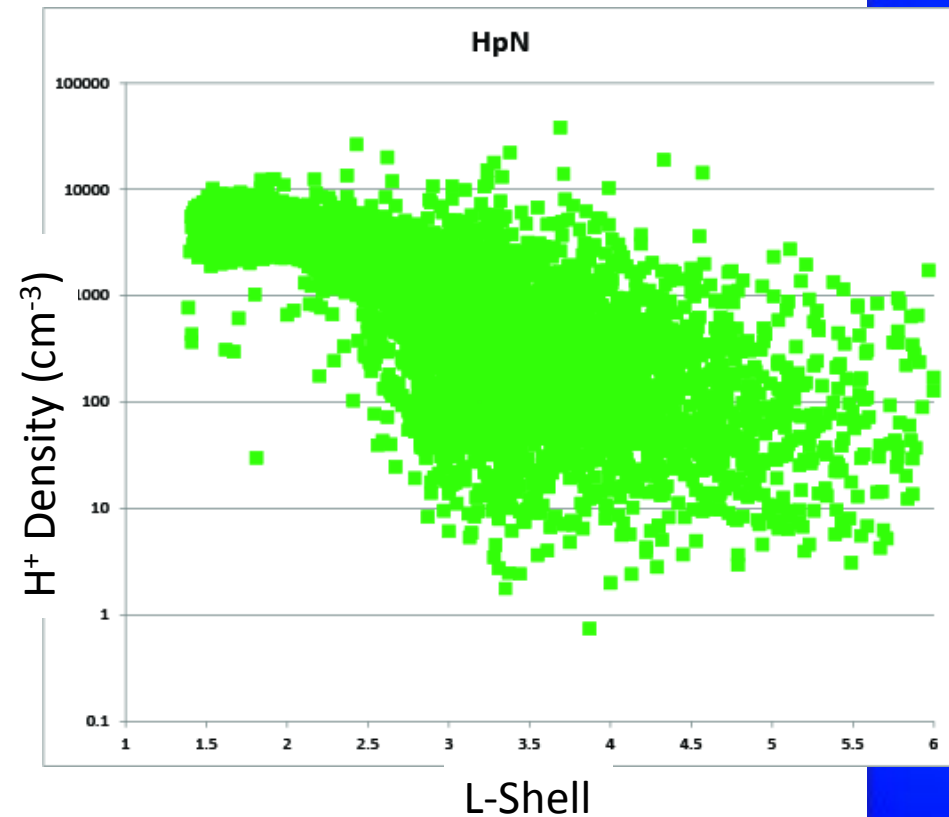


The Plasmasphere from the DE 1 Retarding Ion Mass Spectrometer

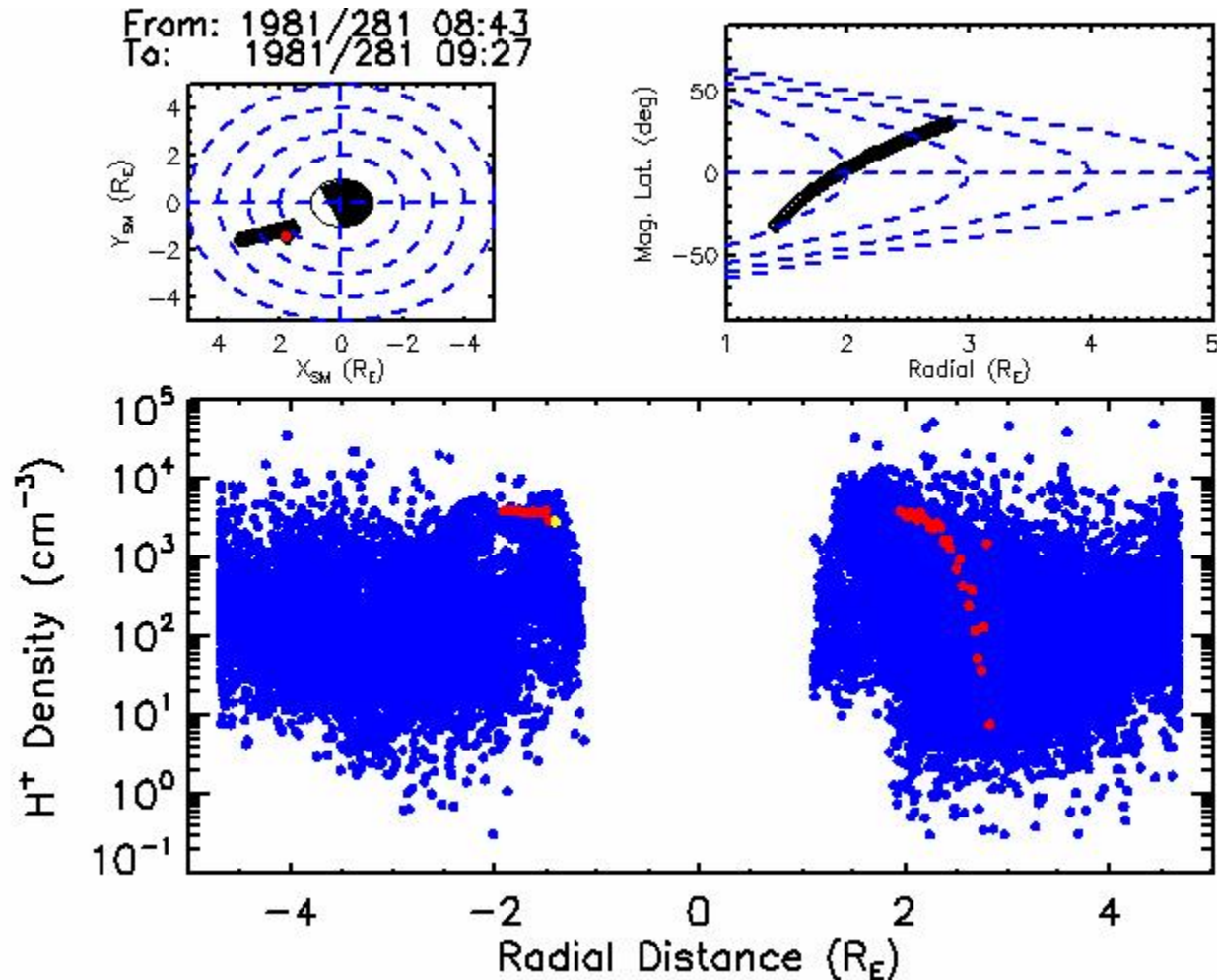
D. L. Gallagher

Mini-Plasmasphere Workshop, JHU/APL October 7-8, 2015

In Situ Challenge for DE 1 RIMS

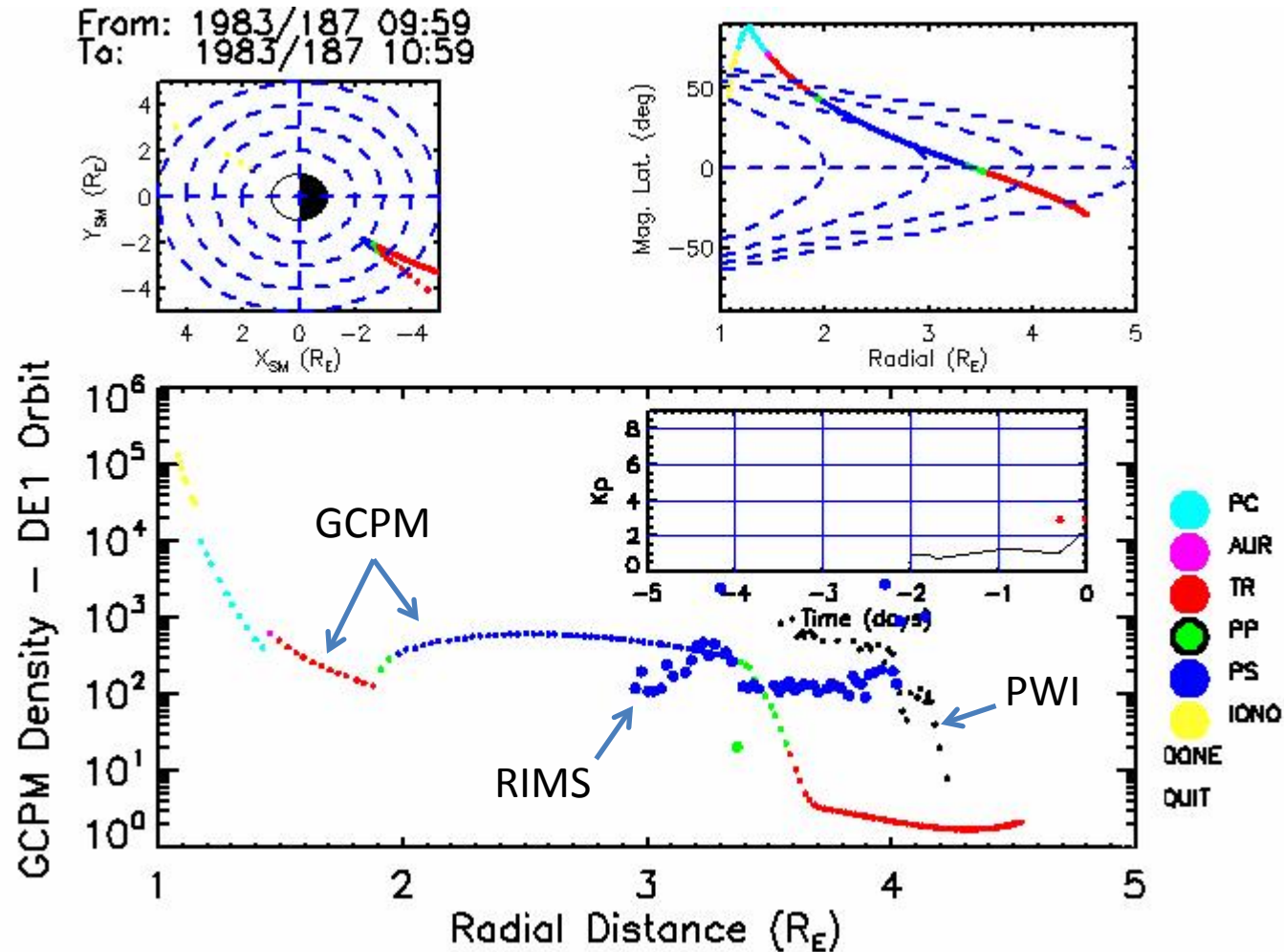


Morphological Regions are Mixed



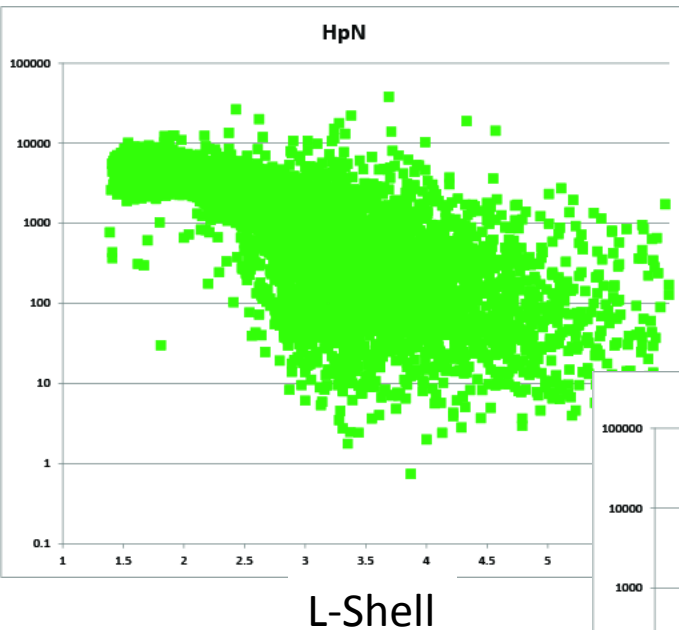
Separating Morphological Regions

DE 1 Orbit

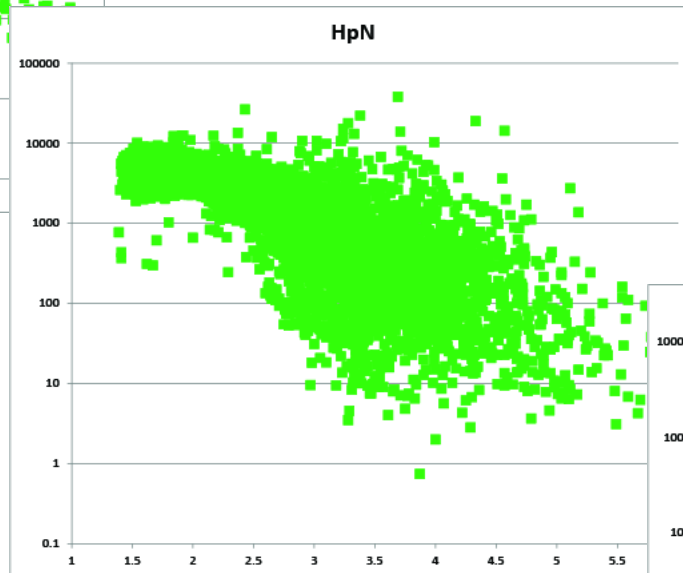


Plasmaspheric H^+ Densities Versus L

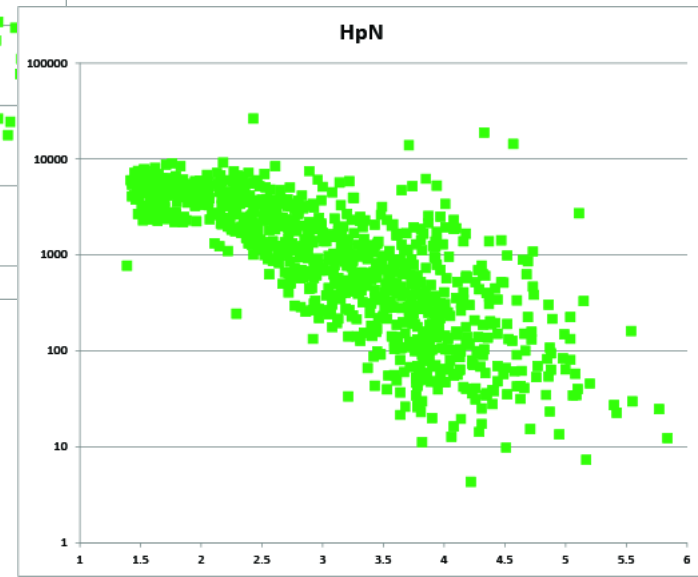
It is important to ask
the right questions.



All H^+ Density Values;
all conditions

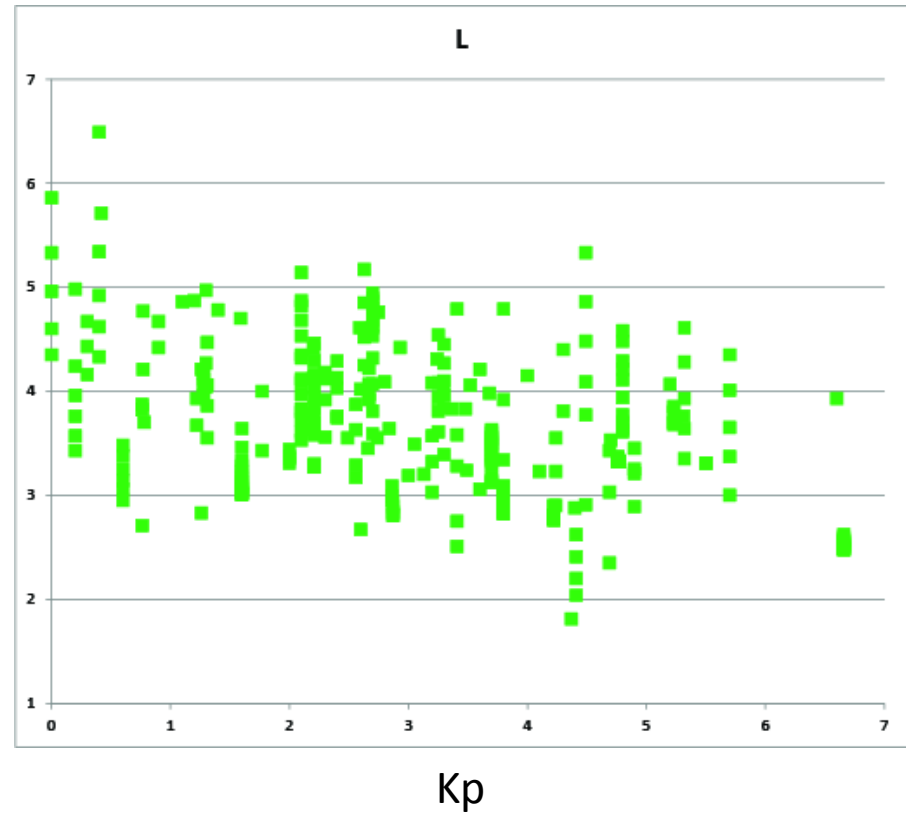
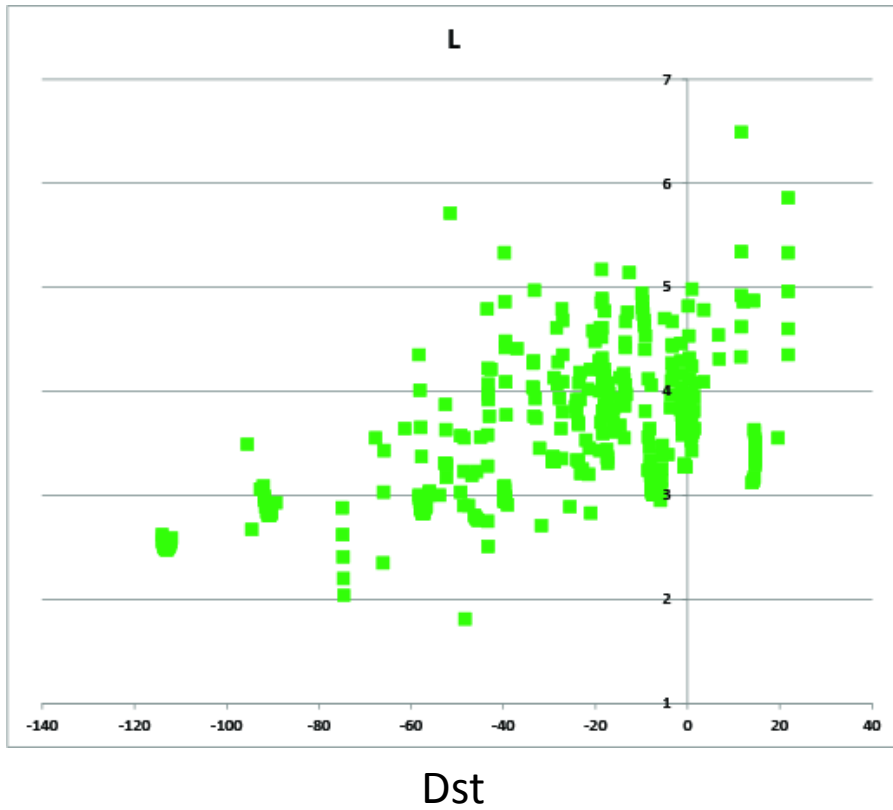


Plasmasphere H^+
Density Values for
 $K_p \leq 2$ and 3-day
steady conditions

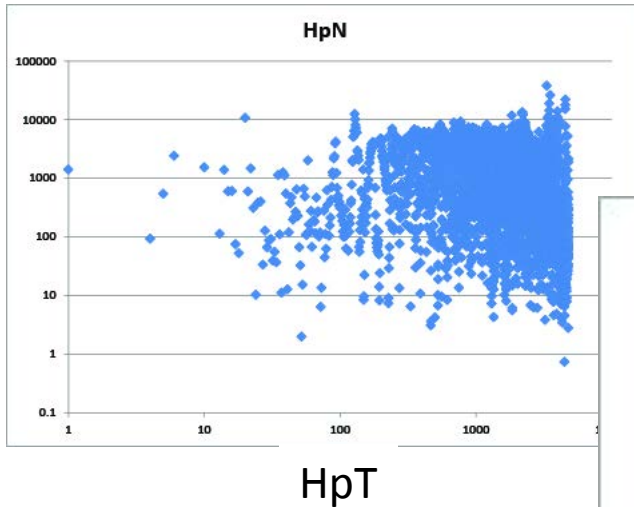


Plasmasphere H^+
Density values only;
all conditions

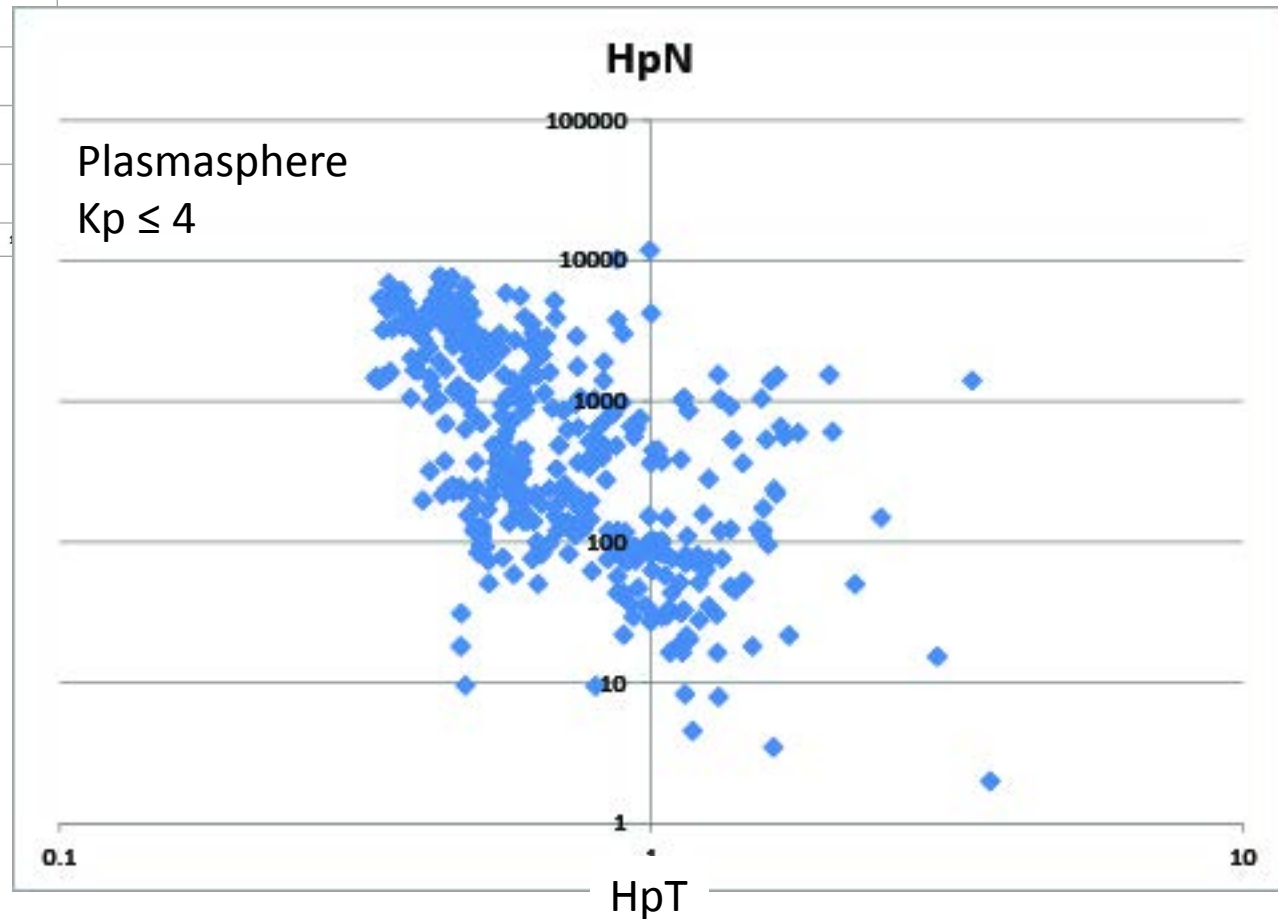
L-shell Plasmopause Locations



Plasmasphere H^+ Density Versus H^+ Temperature

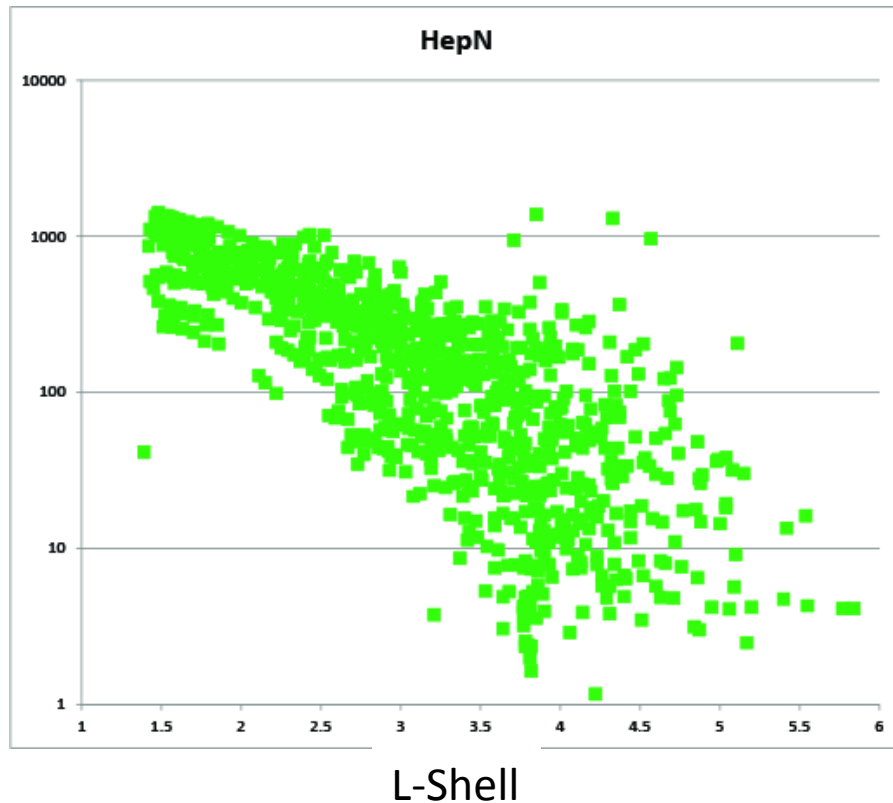


Plasmasphere

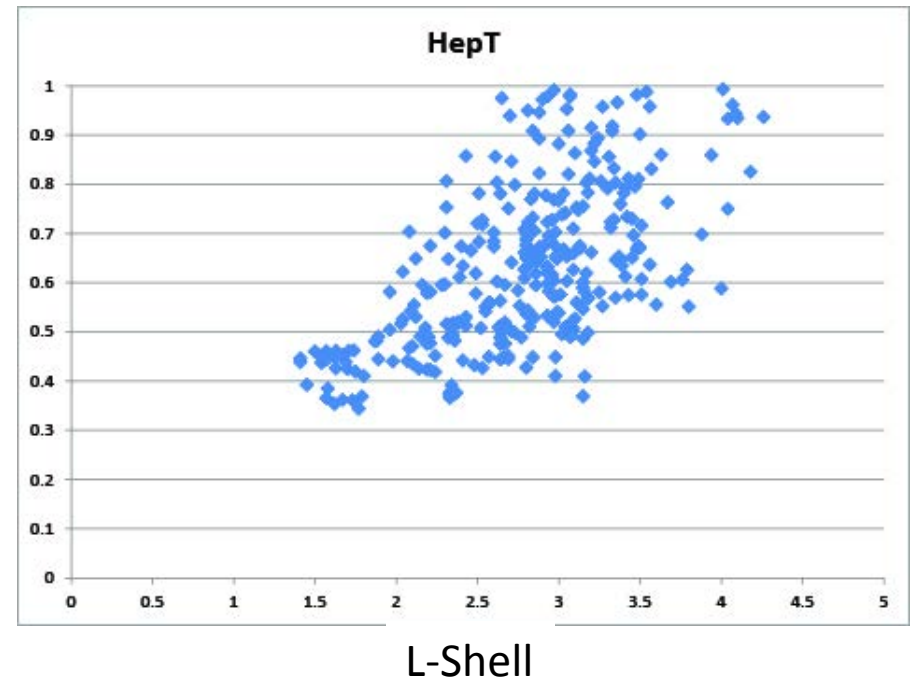


Plasmasphere He+ Density & Temperature Versus L-Shell

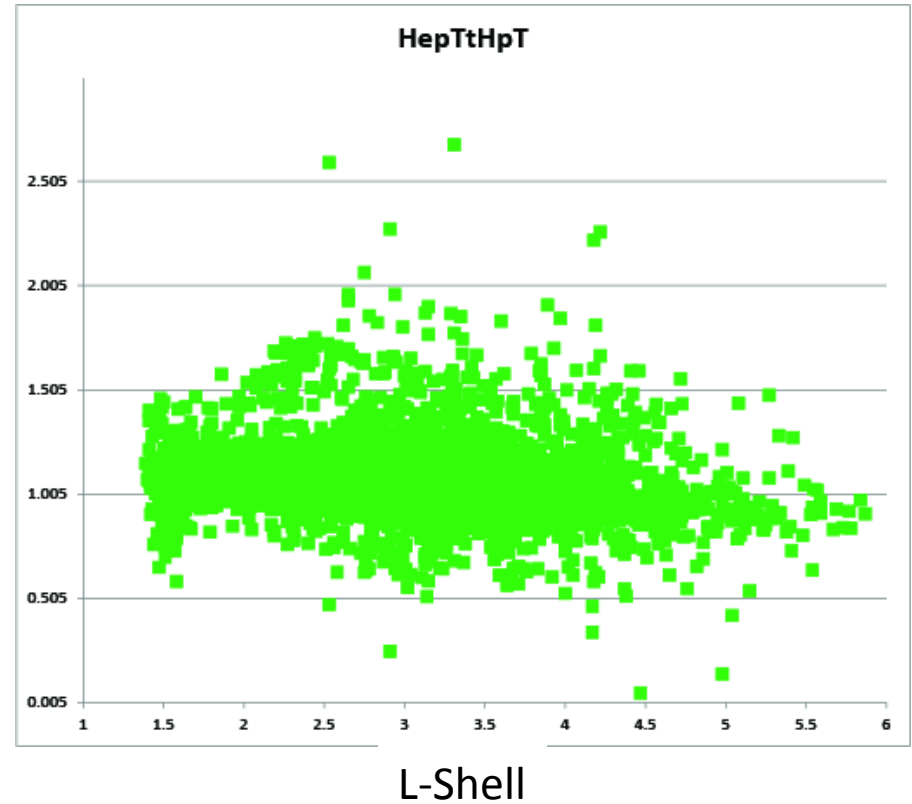
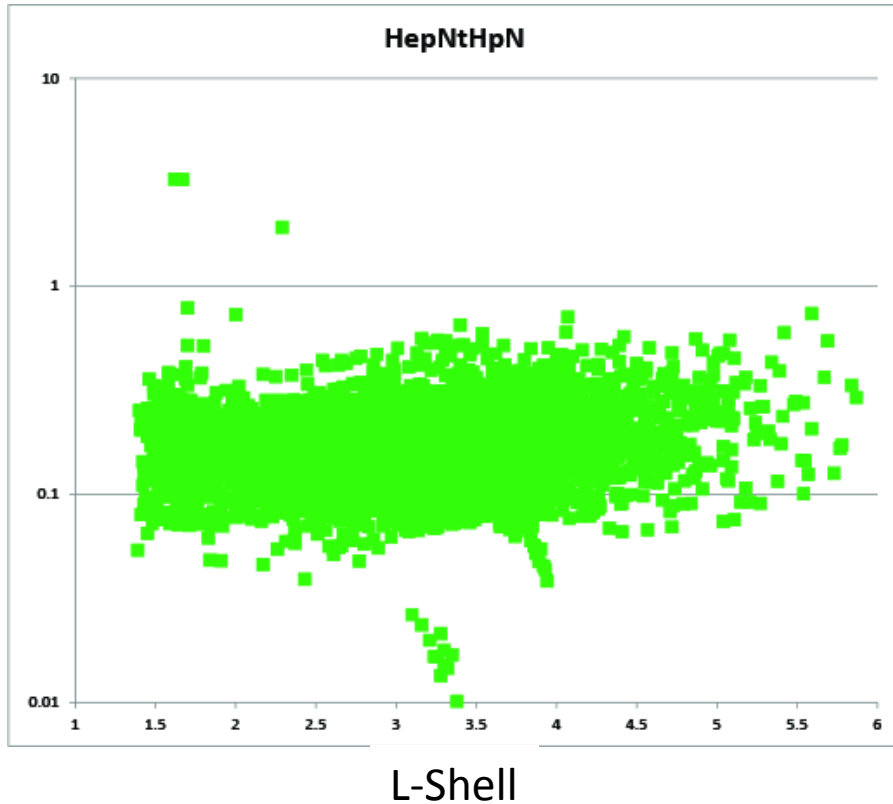
$K_p \leq 2$ and 3-day
steady conditions



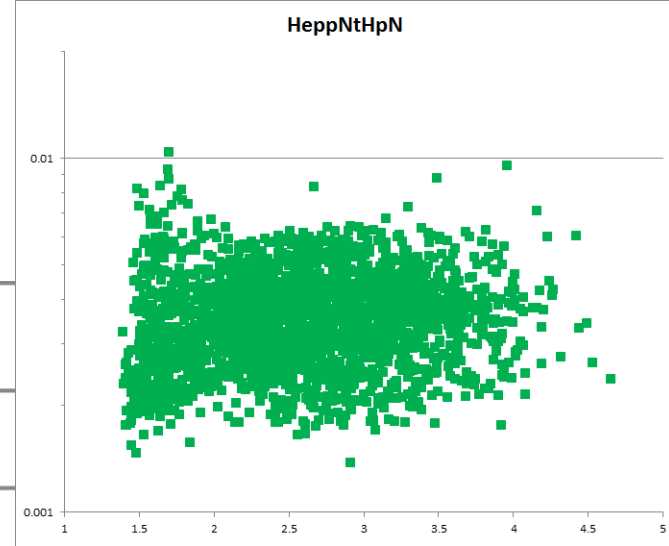
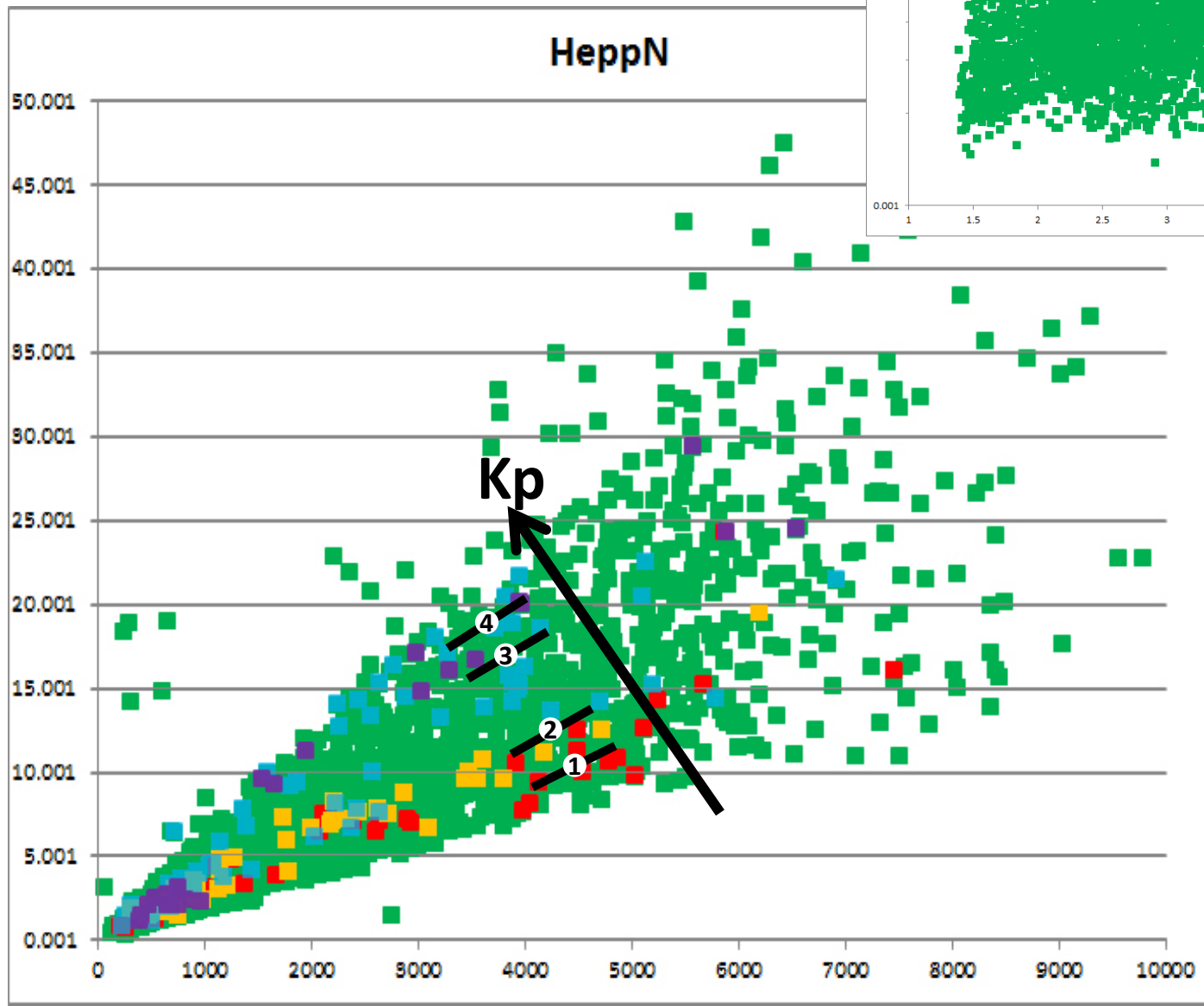
$K_p \leq 4$



He⁺/H⁺ Density & Temperature in the Plasmasphere Versus L-Shell



He⁺⁺ Versus H⁺ Densities With Kp Dependence



O⁺ Density Versus L-Shell in the Plasmasphere

